REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 1-7 and 13-24 are in this application. Claims 8-12 have been cancelled. Claims 1-6 have been amended. In addition to the amendments discussed below, the claims have been amended to alternately recite the present invention. Claims 13-24 have been added to further recite the present invention.

Applicant requests that the Examiner initial the PTO 1449 Form filed with the application, and return a copy of the initialed PTO 1449 Form to applicant. The Examiner returned a copy of the PTO 1449 Form filed with the application, but the PTO 1449 Form was not initialed.

Applicant also requests that the Examiner indicate the status of the formal drawings mailed on September 26, 2003, and received by the PTO on September 28, 2003. The Examiner listed the drawings on the Office Action Summary paper, but did not indicate whether the drawings had been accepted or objected to by the Examiner.

The Examiner rejected claims 4-6 and 11-12 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 4 has been amended and is believed to satisfy the requirements of the second paragraph of section 112. As a result, claims 5-6, which were rejected as depending from claim 4, are also believed to satisfy the requirements of the second paragraph of section 112. In addition, as noted above, claims 11-12 have been cancelled.

The Examiner rejected claims 1-8 under 35 U.S.C. §103(a) as being unpatentable over Lockridge (U.S. Patent Publication No. 2003/0101244) in view of Ma (U.S. Patent No. 6,798,743). As noted above, claim 8 has been cancelled. For the

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reasons set forth below, applicant respectfully traverses this rejection as applied to claims 1-7.

Claim 1 recites:

> "a bus;
> "a plurality of first line cards connected to the bus, each first line card having a plurality of local ports, the plurality of local ports being associated with a plurality of customer devices that have a plurality of IP addresses; and
> "a second line card connected to the bus, the second line card having a network port that is connectable to a network segment, the network port having an IP address and a subnet mask, the subnet mask of the network port identifying a range of IP addresses from the IP address of the network port, the range of IP addresses including all of the plurality of IP addresses of the plurality of customer devices."

In rejecting the claims, the Examiner pointed to LAN interface 120, which is shown in FIGS. 1 and 2 of Lockridge, as constituting one of the plurality of first line cards that are required by claim 1, noting that LAN interface 120 has a plurality of local ports. (See also paragraph 0015 where the Lockridge patent teaches that "LAN interface 120 comprises several physical ports for connection to the client devices 110.") In addition, the Examiner pointed to the client devices 110_1-110_N shown in FIG. 1 of Lockridge as constituting the plurality of customer devices that are required by claim 1.

Further, the Examiner argued that, in view of the Ma patent, one skilled in the art would be motivated to utilize a plurality of LAN interfaces in lieu of LAN interface 120 in order to increase the number of client devices that can be supported by router 122. The Lockridge patent, however, teaches that an unlimited number of client devices 110_1-110_N can be supported by router 122. Thus, since one skilled in the art would not be motivated to modify router 122 in view of Ma to obtain a benefit that is

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already provided by router 122, one skilled in the art would not be motivated to utilize a plurality of LAN interfaces in lieu of LAN interface 120 in order to increase the number of client devices that can be supported by router 122.

In further rejecting the claims, the Examiner pointed to the combination of router 122 and WAN interface 124, which is shown in FIGS. 1 and 2 of Lockridge, as constituting the second line card required by claim 1. Further, the Examiner pointed to paragraph 0022 of the Lockridge patent as teaching that the combination of router 122 and WAN interface 124 has an IP address and subnet mask that are assigned to LAN 102.

With respect to the network port, the Examiner pointed to WAN I/O 215 shown in FIG. 2 of Lockridge as constituting the network port of the second line card. However, WAN I/O 215 can not be read to be the network port of the second line card (the combination of router 122 and WAN interface 124) because WAN I/O 215 is isolated from the outside world by processor 230 and WAN interface 124 as shown in FIG. 2 of Lockridge. Further, applicant has been unable to find any discussion in Lockridge that teaches or suggests that WAN I/O 215 has an IP address. Thus, WAN I/O 215 can not be read to be the network port of claim 1.

The Examiner also appears to have read the network port of WAN interface 124 (which is connected to modem 130 as shown in FIG. 1 of Lockridge) to be the network port of the second line card (read to be the combination of router 122 and WAN interface 124).

Claim 1 has been amended to recite "a plurality of customer devices that have a plurality of IP addresses." As noted above, the Examiner read the client devices 110_1-110_N shown in FIG. 1 of Lockridge to be the plurality of customer devices required by claim 1.

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Claim 1 has also been amended to recite "the subnet mask of the network port identifying a range of IP addresses from the IP address of the network port, the range of IP addresses including all of the plurality of IP addresses of the plurality of customer devices." As further noted above, the Examiner appears to have read the network port of WAN interface 124 to be the network port of the second line card.

However, the subnet mask of the network port of WAN interface 124 does not identify a range of IP addresses from the IP address of the network port, where the range of IP addresses includes all of the IP addresses of the client devices 110_1-110_N (i.e., all of the plurality of IP addresses of the plurality of customer devices).

The Lockridge patent teaches that the IP address and the subnet mask of the network port of WAN interface 124 are defined by the IP address and the subnet mask that are assigned to one of the client devices 110 so that the network port of WAN interface 124 can assume the identity of the client device 110. (See paragraphs 0022 and 0029 of Lockridge.)

Thus, for example, the IP address and the subnet mask of client device 110_1 shown in FIG. 1 of Lockridge can be selected to be the IP address and the subnet mask of the network port of WAN interface 124. By assuming the identity of one client device 110, the IP address and the subnet mask of the one client device 110 become the IP address and the subnet mask of the LAN 102.

However, the subnet mask of the one selected client device 110 does not identify a range of IP addresses from the IP address of the one selected client device 110, where the range of IP addresses includes the IP addresses of all of the remaining client devices 110.

In other words, continuing with the above example, applicant has been unable to find anything in Lockridge that teaches or suggests that the subnet mask of client device 110_1 (whose identity was assumed by the network port of WAN interface 124)

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is used to identify a range of IP addresses from the IP address of client device 110_1. Further, applicant has been unable to find anything in Lockridge that teaches or suggests that the subnet mask of client device 110_1 is used to identify any of the IP addresses of the remaining client devices 110_2-110_N.

Therefore, since the IP address and the subnet mask of the network port of WAN interface 124 is the same as the IP address and the subnet mask of the one selected client device (e.g., client device 110_1), and since the subnet mask of the one selected client device (e.g., client device 110_1) is not used to identify a range of IP addresses from the IP address of the one selected client device (e.g., client device 110_1), where the range of identified IP addresses includes all of the IP addresses of the remaining client devices (e.g., client devices 110_2-110_N), claim 1 is patentable over the Lockridge patent in view of the Ma patent. In addition, since claims 2-7 depend either directly or indirectly from claim 1, claims 2-7 are patentable over the Lockridge patent in view of the Ma patent for the same reasons that claim 1 is patentable over the Lockridge patent in view of the Ma patent.

The Examiner rejected claims 8-12 under 35 U.S.C. §103(a) as being unpatentable over Lockridge (U.S. Patent Publication No. 2003/0101244) in view of the Mogul article. As noted above, claims 8-12 have been cancelled. For the reasons set forth below, applicant respectfully traverses this rejection as applied to new claims 13-16.

Claim 13 recites:

"receiving a message addressed to one of a plurality of customer devices, the plurality of customer devices to be connected to a plurality of modems, the plurality of modems to be connected to a plurality of first line cards, the plurality of first line cards to be connected to a second line card that

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received the message, the message having an IP address and a subnet mask, the plurality of customer devices having a plurality of IP addresses."

However, as shown in FIG. 1 of Lockridge, the plurality of customer (client) devices 110_1-110_N are not connected to a plurality of modems, but are instead connected to router 122. Thus, since Lockridge fails to teach or suggest that the plurality of customer (client) devices 110_1-110_N are to be connected to a plurality of modems, claim 13 is patentable over Lockridge in view of the Mogul article. In addition, since claims 14-16 depend either directly or indirectly from claim 13, claims 14-16 are patentable over Lockridge in view of the Mogul article for the same reasons as claim 1.

New claim 17 recites:

> "a plurality of first line cards, each first line card having a plurality of local ports, the plurality of local ports to be associated with a plurality of customer devices that have a plurality of IP addresses; and
> "a second line card connected to the plurality of first line cards, the second line card having a network port to be connected to a network segment, the network port having an IP address and a subnet mask, the second line card identifying a range of IP addresses from the IP address and the subnet mask of the network port, the range of IP addresses including all of the plurality of IP addresses of the plurality of customer devices."

However, as discussed above, applicant has been unable to find anything in Lockridge that teaches or suggests that the subnet mask of client device 110_1 (whose identity was assumed by the network port of WAN interface 124) is used to identify a range of IP addresses from the IP address of client device 110_1. Further, applicant has been unable to find anything in Lockridge that teaches or suggests that the subnet mask of client device 110_1 is used to identify any of the IP addresses of the

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remaining client devices 110_2-110_N. As a result, claims 17-24 are patentable over Lockridge in view of Ma.

Thus, for the foregoing reasons, it is submitted that all of the claims are in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,

Dated: _9-11-07_   By:_____
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